DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027608
Date Inspected: 15-May-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

12W PP109.5 W2-DAH (Exterior)

This QA Inspector performed Magnetic Particle (MT) testing on the Deck Access Hole (DAH) located at 12W PP109.5 W2 on the exterior of the OBG. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

11W PP104 W1 East Side (Exterior)

This QA Inspector made random observations of ABF welder Eric Sparks (ID 3040) performing SMAW utilizing E7018-H4R electrodes on the modification plates for the suspender brackets (East Side) at 11W PP104 W1. The welder was observed welding in the 3F vertical and 2F horizontal positions with QC Inspector William Sherwood present to monitor the welding and the parameters as they pertained to ABF-WPS-D1.5-F1200A. On a subsequent observation the welder was observed continuing the work and no issues were apparent. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this

location had been completed on this date and appeared to be in general conformance with the contract documents.

8W PP61.5 W2-DAH (Exterior)

This QA Inspector made random observations of the continuing repair welding of the DAH located at 12W PP109.5 W2 on the exterior of the OBG. ABF welder Todd Jackson (ID 4639) was observed performing SMAW in the 1G flat position on excavation #5 at y+2875mm. QC Inspector Sal Merino was observed monitoring the welding and parameters as they pertained to ABF-WPS-D1.5-1001-Repair. On a subsequent observation the welder was observed welding on excavation #6 at y+3365. The welder was noted as cleaning each pass utilizing a small disc grinder and compressed air. QC Inspector Sal Merino measured the 3.2mm E7018-H4R electrodes amperage to ensure the settings were still within the parameters. This QA Inspector noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

13E/14E (Interior)

This QA Inspector observed the following ABF welders noted below performing 4G (overhead position) SMAW on the Seismic Performance Critical Member (SPCM) Complete Joint Penetration (CJP) splice butt joint using 3.2mm E7018-H4R electrodes with amperage of 123. This welding was in progress for the duration of the shift. The welding consists of back fill passes at the 13E-A1 location by Edward Brown (ID 9331) and 13E-E2.1 by Salvador Sandoval (ID 2202). QC Inspector Sal Merino was observed monitoring the welding parameters for compliance to ABF-WPS-D1.5-1040C-CU Revision 0 and measuring inter-pass temperatures between passes. This QA Inspector verified that the electrodes were stored in electric rod ovens and appeared to be in accordance with AWS D1.5 Section 4.5.2 and exposure rates appeared to be in accordance with AWS D1.5 Table 4.7. During subsequent observations it was noted that the welders were using a power disc grinder and/or rotary die grinders at weld starts and stops as needed and were cleaning between weld passes with power wire wheel brushes.

13E Drop-In Plates (Interior)

This QA Inspector observed QC Inspector Sal Merino perform MT Testing and Inspection on the back-gouge of 13E-E2.5 from y+100mm to 4720mm on the interior of the OBG. This QA Inspector observed four (4) indications at random locations along E2.5. ABF welder Jacob Stafford (ID 8020) was assigned to perform minor grinding of indications identified by QC. Upon completion of the grinding, The QC Inspector tested the locations and approved the repairs. At 13E-PP121.2 from 0mm to 1900mm it was noted that the backing bar was still in place and would be tested at a later date. At 13E-E2.4 from 0mm to 2600mm the QC Inspector marked two (2) indications for repair. Upon completion of the grinding, the sites were re-tested and found to be acceptable. The following weld identification numbers were tested and repaired accordingly in the same manner. 13E PP120.6 @ 1000mm, 13E-E2.3 @ 1900mm, 13E A1 @ 5500mm, 13E-A2.1 @ 1850mm, 13E-E2.3 @ 4850mm, 13E PP123.6 @ 2175mm and 13E-E2.1 @ 9500mm. At 13E-A.1 and A2.1, the U-Rib Plates have to remain in sections therefore allowing testing in sections. The QC Inspector was observed performing the MT testing with yoke orientation at parallel and less than perpendicular angles to the weld axis. This QA Inspector observed the QC Inspector perform the MT to SE-MT-CT-D1.5-105. Upon acceptance by QC, this QA Inspector performed MT testing on 10% of the welds listed above. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report

on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

Summary of Conversations:

There were no pertinent conversations today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer